

# FIRST REPORT OF *PORTULACA AMILIS* (PORTULACACEAE) IN THE UNITED STATES<sup>1</sup>

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*Portulaca amilis* Speg. is a weedy South American species of wide distribution. It occurs from the southern portion of the Amazon basin southward across Brazil (Prov. Minas Gerais, Mato Grosso, and Rio de Janeiro) to Paraguay, the extreme northwestern part of Uruguay, and adjacent areas of northeastern Argentina. Within its native range this species is most frequent in sandy situations, being especially characteristic of disturbed sites in populated areas (Legrand, 1962).

In 1974 a collection was made of the species in Pasco County, Florida and was sent to the University of Florida Herbarium for identification. Subsequent collections were made in other areas of peninsular Florida. However, it was not until recently that this "unknown *Portulaca*" was identified as the South American *P. amilis* by the senior author.

An examination of the herbarium collections at the University of Florida and University of South Florida reveals the species to be distributed throughout much of Florida (see list of representative specimens). The earliest Florida collections are from the Tampa Bay area (Hillsborough Co., 1962; Pinellas Co., 1963) and from Duval County (1965). However, the earliest collection from the United States seen by the authors is not from Florida, but one made in 1956 from Harnett County in central North Carolina. The authors have seen material from Georgia and South Carolina, and the species may also occur in other adjacent southeastern states. The exact location(s) and date(s) of introduction of the species into Florida, Georgia, and the Carolinas are not known. It is quite likely that there may have been several introductions and that the species may have been established in our flora much longer than the first known collections indicate. As expected the species is known only from disturbed sites such as pastures, newly cleared pinelands,

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gardens and cultivated fields, road shoulders, lawns, and even parking lots. To date it has been collected only on sandy soil.

*Portulaca amilis* is a member of subgenus *Portulaca* as are all of the southeastern United States portulacas (Legrand, 1962; Bogle, 1969) and belongs to section *Catoclasia* (Legrand, 1962). *Portulaca pilosa*, *P. smallii*, and *P. grandiflora* are also placed within this section. However, Legrand placed these three species in subsection *Pilosae* and *P. amilis* (along with its South American relatives such as *P. striata*, *P. obtusa*, *P. lanuginosa*, and *P. gilliesii*) in subsection *Cuneiformes*.

*Portulaca amilis* is very showy and has potential as a cultivated ornamental. Plants are prostrate to decumbent annuals with fleshy, flat, narrowly to broadly obovate leaves. The leaves vary from 4–20 (or rarely 26) mm long and from 1.5–6.5 (or occasionally 9.5) mm wide with acute to acuminate or rounded-mucronate apices. The conspicuous axillary hairs are brownish to white and from ca 3–8 mm long. Its flowers are showy, to 2 cm across, intensely pink to pink-purple (grading to salmon-colored at the petal-base) and are borne in terminal heads subtended by an involucre of 6–8 (rarely 10) leaves. (Yellow-flowered individuals occur in South America.) The two sepals are ovate-triangular and 3–5 mm long. The petals are strongly obovate. Each flower has from 15–45 stamens. The circumscissile capsules open near the middle to release numerous more or less shiny black or dark brown seeds about 0.4–0.5 mm in diameter. The seed coat is nearly smooth to obscurely papillose. (All measurements except flower width are based upon dried material.) Figure 1.

This species is easily confused with *Portulaca pilosa* since both have conspicuous brownish to white hairs in their leaf axils and pink flowers. However, *P. amilis* is easily distinguished from *P. pilosa* by its large, flat, more or less obovate leaves, larger flowers, and smaller, obscurely papillose seeds. *Portulaca amilis* is of course easily separated from *P. oleracea* because of its pink (vs. yellow) flowers, leaves with conspicuous axillary hairs, and acute to mucronate leaf apices.

Although little is known of the reproductive biology of *P. amilis*, it is of interest. It often grows with both *P. pilosa* and *P. oleracea* and its flowers are reported to open and close about 90 minutes earlier than those of *P. pilosa*.

The following key is provided to briefly compare the Florida species of *Portulaca* and to facilitate their identification.

#### KEY TO NATIVE AND INTRODUCED SPECIES OF PORTULACA IN FLORIDA

1. Hairs of leaf axils inconspicuous, at most ca 1 mm long ..... *P. oleracea* L.
1. Hairs of leaf axils conspicuous, greater than 3 mm long ..... 2.
2. Leaves flat, oblanceolate to obovate, largest involucreal leaves at least 3–6 (–8) mm wide ..... *P. amilis* Speg.
2. Leaves terete or nearly so, linear or very narrowly ovate to elliptic (rarely very slightly oblanceolate), largest involucreal leaves 1–2 (–2.5) mm wide ..... 3.

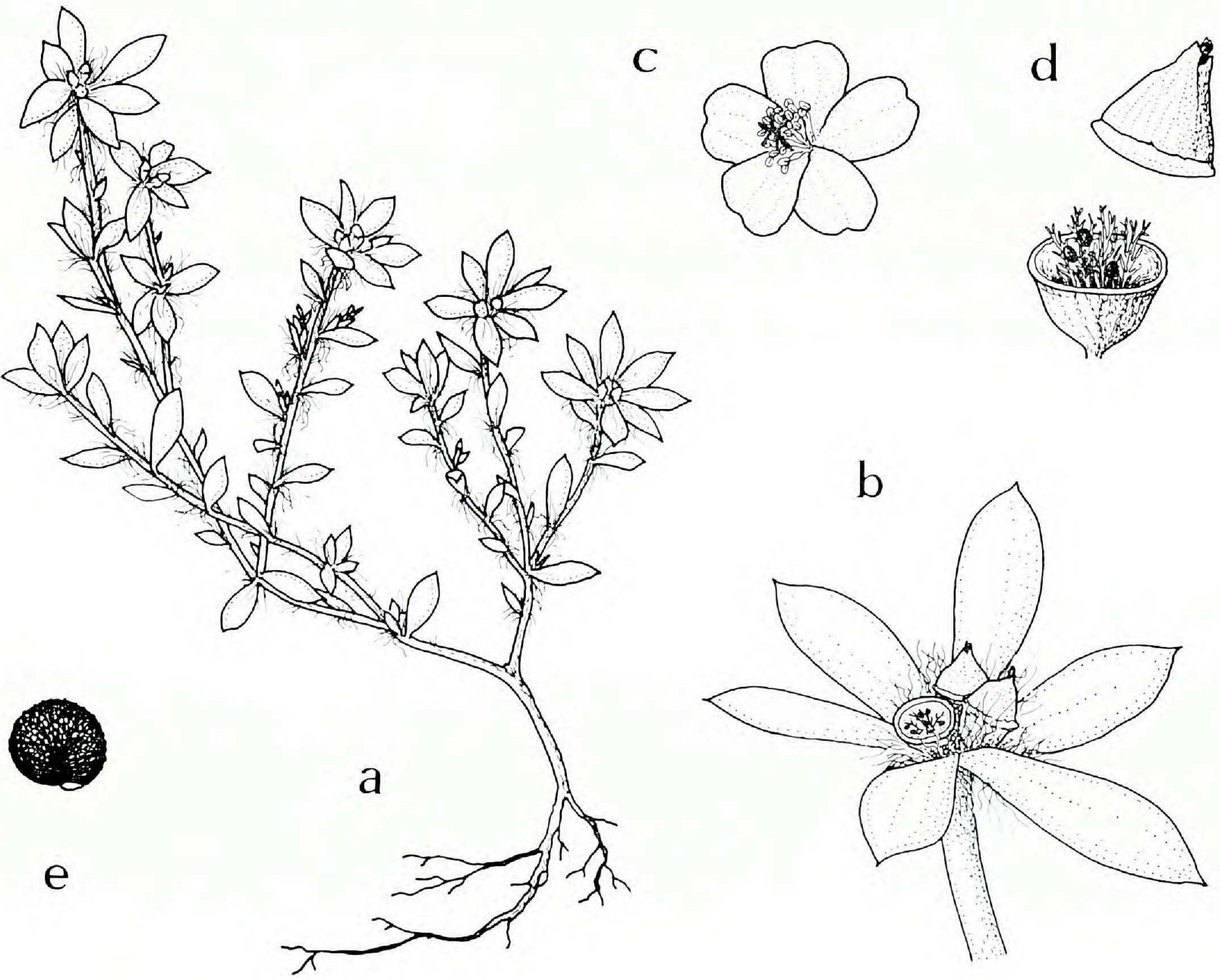


Figure 1. *Portulaca amilis*. a, habit, x 0.5; b, involucre cluster of capsules, x 1.5; c, flower, x 1.5; d, fruit (circumscissile capsule); e, seed, x 18.

3. Corollas 3–5.5 cm wide ..... *P. grandiflora* Hook.  
 3. Corollas less than 1.5 cm wide ..... 4.  
 4. Major stem(s) more or less erect; corollas yellow .... *P. rubricaulis* HBK.  
 4. Major stem(s) more or less prostrate to decumbent; corollas pink to rose-purple ..... *P. pilosa* L.

An effort should be made to determine more accurately the geographical distribution and possible economic importance (both as an ornamental and a problem-weed) of this species.

Representative specimens:

FLORIDA: Alachua Co.: Gainesville, University of Florida campus, 23 Jul 1979, *Judd* 2782 (FLAS); Desoto Co.: 7.8 mi S of Arcadia, 24 Jul 1978, *Shuey* 2129 (FLAS); Duval Co.: Jacksonville, off Merrill Road, 7 Aug 1965, *Creager* 505 (FLAS); Hillsborough Co.: Tampa Industrial Park ca ½ mi W of 46th St. N of Linebaugh Ave., 24 Jun 1964, *Lakela* 25143 (USF); Big Bullfrog Creek ca 6 mi S of Riverview on US 301, 1 Jun 1976, *Wunderlin, et al.* 5606 (USF); Jackson Co.: near Neal's Landing, ca 0.5 mi NE of jct. of Fla. 271 and 164, S34, T7N, R8W, 28 Aug 1976, *Gholson* 4385 (FLAS); Lake Co.: N of Leesburg, *Baltzell* 11201 (FLAS); Manatee Co.: S of Fla. 62 and SE of Duette, 15 Sep 1976, *Shuey* 1766 (USF); Pasco Co.: Saint Leo area, 4 Sep 1974, *DuQuesnay s. n.* (FLAS); Pinellas Co.: NW end of Mullet Key, Fort DeSoto Park, 13 Sep 1963, *Thorne* 33933 (USF); Polk Co.: near N end of Lake Weohyakapka, 15 Apr 1976, *Willson* 1 (FLAS); Seminole Co.: Sanford, S32, T19S, R31E, 18 Jul 1975, *Scudder* 952 (FLAS); Sumter Co.: Fla. 471 at the Withlacoochee River, *Baltzell* 11214 (FLAS); GEORGIA: Houston Co.: Along Ga. 247-C, 1 mi E of Warner Robins, 7 mi W of I-75, 18 Sep 1980, *Sauleda & Sauleda* 4625 (FLAS, USF). NORTH CAROLINA: Cumberland Co.: Methodist College campus lawn, 19 Aug 1968, *Ittenbach* 1774 (FLAS); Harnett Co.: Pineview, 4 Oct 1956, *Lanig* 481 (FLAS). SOUTH CAROLINA: Lee Co.: 4 mi NNE of Lucknow, 26 Jul 1957, *Radford* 27299 (USF).

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